DOCUMENT RESUME

ED 320 625 JC 900 349

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TITLE Celebrating Excellence in the Classroom.
PUB DATE 21 May 90
NOTE 24p.; Paper presented at the International Conference on Teaching Excellence (12th, Austin, TX, May 20-23, 1990).
PUB TYPE Speeches/Conference Papers (150) -- Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Action Research; *Classroom Research; College Faculty; College Role; Community Colleges; Feedback; Formative Evaluation; *Teacher Improvement; Teacher Participation; *Teacher Role; Two Year Colleges

ABSTRACT

The mission, curricula, students, and faculty of community colleges make them ideal laboratories for the study of teaching and learning at the college level. To accomplish this goal, community college faculty members should take on the role of classroom researchers, conducting careful, systematic, and patient studies of their students in the learning process. The purpose of classroom research is to help teachers assess the effectiveness of their own teaching, so that they may make appropriate modifications while their classes are still in progress. One form of classroom assessment solicits feedback on how students are learning. At the end of each class period, students are asked to write down the most important thing they learned that day and identify any questions they still have. Community colleges are in the best position to be leaders in developing expertise in college-level teaching for the following reasons: (1) community colleges are primarily teaching institutions; (2) no other type of institution has the same challenge or obligation for teaching excellence that the community college has; (3) the diverse community college curriculum offers a potentially productive laboratory for gaining knowledge about learning; (4) classroom teaching is especially important to commuter students, who constitute virtually all of community college students; (5) the practical orientation of community college teachers assures that the problems for classroom research are real problems that affect college teachers in their classrooms; and (6) the diversity of the community college student population is an advantage in studying the learning process. (WJT)

CELEBRATING EXCELLENCE IN THE CLASSROOM

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Delivered at the Twelfth International Conference on Teaching Excellence, University of Texas, Austin, Texas, May 21, 1990.

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Of the many conferences and professional meetings I attend in the course of a year, this has to be among my favorites -- for its high spitit of celebration of teaching, the quality of its sessions, which are usually presented by outstanding teachers, and the dedication of its participants to access with excellence in community college education. Add to this a bit of Texas hospitality, and you have a sure-fire formula for a successful conference.

So, I'm delighted to be a participant once again in this annual celebration of teaching excellence. It is time for teachers to take pride in their work, and it is time for taxpayers, legislators, and the general public to recognize that if all of the hoopla about educational reform is going to amount to anything, it will be teachers in their classrooms who will ultimately bring about the improvements that are sought by almost everyone -- from politicians to the general public to concerned educators.

The public is expressing concern through the recommendations of blue-ribbon commissions. Policy makers are taking action through

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passing legislation and imposing regulations. Administrators are worrying about accountability and making plans for assessment. But in the final analysis, none of these people affect directly what students learn in college. The quality of education depends largely on what happens when teachers meet students in college classrooms.

Most of us have been in classrooms a good share of our lives, both as students and as teachers. I figure that by the time we finish college, we have had roughly 75 different teachers, an opportunity to observe them for thousands of hours, and to make some assessment of the impact of their teaching on our learning. Such extensive and intensive data would be an incredible luxury to any educational researcher. To my knowledge, none of my colleagues doing research on teaching has ever received a grant that would permit such close observation of such a wide variety of teachers over such a long period of time. And yet despite extensive opportunities to observe teaching and learning, most of us embark upon our teaching careers knowing very little about it.

It occurred to me as I walked home in the dark the other night that I look at the heavens every night, or at least am aware of -- and sometimes in awe of -- stars, moon, and changing patterns in the sky. Yet I know almost nothing about astronomy. I am a naive observer of the heavens, just as most of us a naive observers of teaching. Were I a trained observer or an astronomer, I would find things of fascination that the untrained eye fails to see. I would know what to look for, and I would grow in understanding and knowledge. My walk home would do more than take me to my destination. It would

be a new experience each evening, a source of energy, an opportunity for growth.

Drawing on this analogy, I think what an unusual opportunity we have as teachers to observe our students in the process of learning. Learning is a fascinating process -- especially if we know what to look for -- and all of us can become trained and systematic observers. Unlike the astronomer, however, who can do little more than predict what might happen on a far-distant planet, a teacher can have a direct impact on students' lives. At times, it may be the satisfaction that comes from bringing about the small everyday triumphs of the "Ah ha, now I see" variety. At other times, we are changing lives through education.

Teaching in a community college, it seems to me, has great potential for both the lows and the highs of teaching. The possibility of the ultimate high of teaching is always present because here many community college students will be awakened for the first time in their lives to the inner satisfaction of learning. Community college teaching also offers the greatest potential for discouragement and frustration of any teaching career -- frustration because the system is hard on students who can't or won't move with the group, and discouragement because we can't always find the keys that will unlock the universal human potential for learning.

Because the quality of teaching is so critical to the experience of community college students, the Commission on the Future of Community Colleges set forth the bold goal that "The community college should be the nation's premier teaching institution. Quality instruction should be the hallmark of the movement" (p. 25). That is

a tall order, but community colleges have a good chance of becoming the leaders of the quality movement of the 1990s, much as they became the leaders in the access revolution of the 1960s.

Let me talk first about the role of community colleges in this particular era of educational reform. Then I'll move to how we might address some of today's concerns about the quality of education. And finally, I'll make some concrete suggestions for how classroom teachers might use their classrooms as laboratories for the study of learning and the impact of their teaching upon it.

The educational reform movement has moved with great speed, considering the number of people affected. It has been just five years since A Nation at Risk took aim and fired its salvos at the American educational system, making memorable such phrases as, "unthinking, unilateral educational disarmament" and "a rising tide of mediocrity" (p. 5).

The National Commission on Excellence in Education, authors of A Nation at Risk, was appointed by then-Secretary of Education Terrel Bell to look into some so-called "indicators of risk" -- data showing that education was not fulfilling its obligations to society. They looked at evidence showing an unbroken decline in SAT scores from 1963 to 1980; they made international comparisons of student achievement that showed American students never first or second and frequently last in comparison with other industrialized nations. They worried about widespread functional illiteracy among 17 year olds, and displayed for view a leaky educational pipeline that spews 25 percent of the population onto the streets as high school dropouts. Americans, said the commissioners, were growing impatient with the

"shoddiness of American life" that is too often reflected in our schools and colleges (p. 11).

Apparently so. At any rate, an intense re-examination of schools and colleges, teachers and teacher training, is now underway. In the past five years, more than 300 task forces have been appointed throughout the 50 states, and more than 60 major reform reports have been issued by organizations of every conceivable stripe, including those representing teachers and teachers' unions, foundations, state and national departments of education, professional associations, colleges of teacher education, and deans of university schools of education.

Legislators have been busy too; 22 states now require public colleges and universities to develop programs to assess what students learn in college, and in many states students are required to demonstrate through statewide testing programs that what they have learned in high schools and community colleges will prepare them for citizenship in the "information society."

The bad news is that so many people regard the educational system as in a state of disrepair and disarray. The good news is that education is finally receiving the national attention that it deserves.

The realization has hit hard that the dependence of this society on education is more than hyperbole. The existence of a permanent undereducated underclass is a threat to our most basic values of democracy and freedom, and the lack of learning skills among the general population is a threat to productivity, international competition and the general welfare in a society in which more than 60 percent of the workforce is said to be working with information.

Most American workers, says John Naisbitt, author of Megatrends (1982) "spend their time creating, processing, or distributing information" (p.14). In that kind of world, functional illiterates can't even support themselves, let alone contribute to a society that has become, in a relatively short period of time, dependent on an educated work force.

Many of you sitting in this audience today would say to me at this point, if you could get a word in edgewise, "Don't we know it! We're trying to work everyday with the graduates of American high schools who can't write a coherent paragraph or solve a math problem requiring several steps." Four-year college teachers are saying the same thing about community college transfers, and graduate schools are echoing the sad refrain about the graduates of four-year colleges. The buck has to stop somewhere, and while everyone would prefer that we provide a solid foundation for learning in elementary schools, the fact is that we won't have a good educational system until every teacher at every level is doing the best possible job that he or she can do. That is what we mean by educational effectiveness, the latest buzz word in education.

There are many words that come and go in the lexicon of education. Some, fortunately, vanish without a trace, but the concept of effectiveness will remain because "effectiveness" is a strong word that means precisely what it purports to mean. It means to the lay public what it means to legislators. The dictionary defines "effectiveness" simply. It means, "having an effect, producing a definite or desired result." An effective college is one that has an effect, that produces the desired results.

This is an era in which there is a lot of agreement on the desired results of education. The one thing that all of the reform reports have in common is that they believe that educational institutions at all levels should produce students who can read, write, and compute, who possess the basic tools to learn new skills and concepts and who have sufficient appreciation of learning that they can use it throughout their lives to make life richer and more productive. Priorities, points of emphasis, and especially how to produce the desired results, provide the basis for plenty of discussion, argument, and analysis, but the goal of the reform movement is clear; the purpose of educational institutions is to produce educated students, and the challenge is how to do that. When community colleges accepted the challenge of open admission, they were faced with turning the world's most incredible diversity of students into educated persons.

Although community colleges have not always been given credit as the pacesetters of American higher education, historians are going to write in future years of the enormous impact of community colleges on education and society, especially in the latter half of the 20th century. In our era, community colleges are charged with carrying out one of the most important and most difficult ideals of a democratic society.

Equal opportunity for all our citizens, regardless of color, creed, gender, or age has been an ideal to which we aspire when we are at our best. Although we can't claim that community colleges have accomplished the goal of equal opportunity, it is a fact that community colleges are the leading institutions in the hierarchy of

higher education in serving more minorities, more part-time students, more adults, more blue- and pink-collar workers, more of the elderly, more single parents and more displaced workers than any other segment of higher education. In short, every so-called "non-traditional" segment of society that was underrepresented in higher education in 1950 is over-represented in community colleges today. Community colleges are doing more than their share to open the doors of higher education to previously unserved segments of society. In this they have served their society well. But, some would claim, opening the doors of higher education is easy -- maybe too easy. Access is a necessary, but not sufficient, condition for equal educational opportunity.

The ideal of opening the doors of college to people who had never thought that college was for them, is without question an exciting venture. When I first became interested in community colleges more than 20 years ago, community colleges were new, young, idealistic, energetic, and enthusiastic. Then they hit a plateau (Cross, 1981) as teachers and administrators discovered the disillusionment that followed unprecedented access. Mina Shaughnessy wrote eloquently of the feeling that overtook her as an English teacher when the City University of New York opened its doors in 1970 to every resident of New York City with a high school diploma.

> "I remember sitting alone," she wrote, "in the worn urban classroom where my students had just written their first essays and where I now began to read them, hoping to be able to assess quickly the sort of task that lay ahead of us

> that semester. But the writing was so stunningly unskilled that I could not begin to define the task nor even sort out the difficulties. I could only sit there, reading and rereading the alien papers, wondering what had gone wrong and trying to understand what I at this eleventh hour of my students' academic lives could do about it." (p. vii)

Like Mina Shaughnessy, many community college teachers faced up to the task and tried to understand what had gone wrong and what they could do about it. But a decade ago when Shaughnessy wrote her classic book on the teaching of basic writing (1976), no one knew how to deal with the learning problems of open admission students. Quoting Shaughnessy again,

> "...there were no studies nor guides, nor even suitable textbooks to turn to. Here were teachers trained to analyze the belletristic achievements of the centuries marooned in basic writing classrooms with adult student writers who appeared by college standards to be illiterate. Seldom had an educational venture begun so inauspiciously, the teachers unready in mind and heart to face their students, the students weighted by the disadvantages of poor training yet expected to 'catch-up' with the front runners in a semester or two of low-intensity instruction." (p. 3)

That inauspicious beginning blossomed into an energetic nationwide attack on some of the most stubborn problems in education. But most of what teachers learned, they learned through their own experience in the classroom. They were not standing on the shoulders of giants. There was little professional knowledge and research to sustain the effort. Toward the end of the 1970s, energies begin to flag, and "teacher burn-out" entered the vocabulary. After

doing some research on community college missions in the late 1970s, I wrote these words,

> "The late 1970s and early 1980s represent a plateau between two periods of high energy and a sense of mission in the community colleges. The old ideals that sparked enthusiasm and a sense of common purposes in community colleges have receded, and new ideals have not yet emerged to take their place" (1981, p. 113).

The old ideals were, of course, access and equal opportunity for unserved segments of the population. The new ideals are emerging now as we enter the 1990s. They are set forth in the report of the Commission on the Future of Community Colleges. When the report was presented two years ago at the annual convention of the AACJC, I saw some of the old energy and enthusiasm return as the more than 3,000 community college leaders atending rose to their feet to give the Commission's vision of the future a standing ovation.

The Futures report, entitled Building Communities: A Vision for a New Century defines community "not only as a region to be served, but also as a climate to be created." That climate, as the Commission sees it, will to a great extent be established by the teaching faculty. The report states it this way:

> "At the center of building community there is teaching. Teaching is the heartbeat of the educational enterprise and, when it is successful, energy is pumped into the community, continuously renewing and revitalizing the institution. Therefore, excellence in teaching is the means by which the vitality of a college is extended and a network of intellectual enrichment and cultural understanding is built ....Thus, building community

through dedicated teaching is the vision and inspiration of this report" (pp. 7-8).

It is one thing to set forth a vision; it is quite another to implement the Commission's vision of the community college as, "the nation's premier teaching institution" (p. 25). What is a premier teaching institution? And how realistic is it to expect community colleges, with their unselected and diverse student populations, to lead the nation in such a major contribution and major prize?

My answer to those questions is that community colleges are "naturals," both for making contributions to knowledge about the impact of teaching on learning and for improving teaching practices in colleges and universities. Several years ago, in a major address to the American Association of Higher Education (Cross, 1986), I proposed that college teachers should become Classroom Researchers. Then, to my great delight, the Commission on the Future of Community Colleges recommended that, "Community colleges should define the role of the faculty member as classroom researcher -- focusing evaluation on instruction and making a clear connection between what the teacher teaches and how students learn" (p. 27).

When I use the term "Classroom Research," I am not talking about research with a capital R to mean heavily funded, discipline-based, publication conscious, PhD type research that typically takes teachers out of the classroom and into laboratory or library. Rather, I am using "research" in the simple dictionary definition of the term to mean, "careful, systematic and patient study." Classroom Research is the careful, systematic and patient study of students in the process

of learning, and more specifically of how students are responding to our efforts to teach them.

You as college teachers have all of the laboratory equipment you need to become classroom researchers. You have a classroom with students in it that represent the sample that is most relevant to you. Furthermore, your sample is already engaged in the task that you really want to study. Students are trying to develop the skills and knowledge that are the foundation of a particular subject matter -- English, math, or whatever -- in which you have considerable knowledge. There is no need for Classroom Researchers to take the typical graduate course in educational research, most of which consists of learning how to select a representative sample and devise an appropriate experimental task for study under controlled conditions. A Classroom Researcher is interested in knowing what happens when a known group of students try to learn a real-life learning task under the realistic conditions of your classroom.

The purpose of Classroom Research is to help teachers assess the effectiveness of their own teaching. Most teachers really don't know how effective they are as teachers. In fact, there is some evidence that both students and teachers are well aware of the gap between teaching and learning. When students at UC, Berkeley were asked to rate how descriptive each of 24 items were of their teachers, one item fell consistently among the lowest four. "Knowing how well students are understanding" is, according to students, not very descriptive of most of their teachers (Wilson, 1987).

If faculty are to improve as teachers, they are going to have to have quicker and better feedback on what students are learning and

how they are responding to teaching. That is where Classroom Research comes in. It consists of feedback devices that help teachers assess what students are learning as a result of their teaching efforts.

An example of a very simple form of classroom assessment will make the concept concrete. "Minute Papers" is an assessment technique developed by Charles Schwartz, a professor of physics at the University of California, Berkeley (Wilson, 1986). A few minutes before the end of the class period, he asks students to write the answers to two questions: 1) What was the most important thing you learned today? and 2) What questions remain uppermost in your mind as we conclude this session?

Teachers using this simple device have opened a window through which to view the response of students to a particular class session, but they have also incorporated some important pedagogical devices into their assessment of what students are learning. First, "Minute Papers" asks students to summarize or synthesize what they have learned, and second, it puts students on notice that they are expected to be actively involved in learning and in raising questions.

Classroom assessment usually asks rather simple questions, such as, How well can students paraphrase the major points emphasized in the class session? How much of the terminology of your discipline do they remember from one class session to the next? How well do they make comparisons and analyze arguments? The assessment techniques used in answering these questions teach as well as test. If a teacher wants to know how well students can analyze an argument, for example, the assessment technique must engage students in the analysis of an argument.

Last fall some fifty faculty members from three community colleges in the San Francisco Bay Area started on the road to becoming Classroom Researchers. Some examples of their projects may give you a better idea of the nature of the classroom assessment techniques that they are developing as a first step toward Classroom Research.

A pre-calculus teacher had long been troubled by the extreme diversity of math backgrounds in his course, so prior to the teaching of each new unit, he developed a brief questionnaire to determine students' familiarity with the procedures and terminology of the new material. With this "background probe" and his analysis of the data collected, he could anticipate where students would run into difficulties and could modify his teaching accordingly. He reported that an unanticipated benefit was students' appreciation of his concern and interest in their background for the unit.

Another example comes from an English teacher who was never quite sure what students were really learning from small-group sessions in which the task was to critique one anothers' papers. She used a modification of Minute Papers to find out. She asked students to take a few minutes at the end of the class period to write the answers to these two questions: First, What have you learned today about your own writing? Second, What did you contribute to the learning of others in the group? A side benefit of her study was that students, knowing that they were going to be asked about their learning, gave increased attention to the tasks.

A final example will make clear the simplicity of the tasks that we are encouraging in these early efforts. The primary purpose of a

course in third-semester calculus was to prepare students for advanced courses in engineering and physics. The question the teacher of this course chose to investigate was, Were students, in fact, able to apply their learning in math to science concepts? He collected simple applications from his colleagues in the science department and determined how well students could handle them, and then experimented to see how he could help them learn more effectively. A side benefit of his project was the conversation and collaboration of teachers across departments.

Please notice that learning -- rather than teaching -- is the object of study in Classroom Research. This represents an important reversal of the usual approach to the improvement of teaching in which we are asking teachers to concentrate on their own behavior. It is not only quite difficult to observe oneself in action, but if students are not responding, it makes no difference how perfectly the teacher is teaching. The premise of Classroom Research is that as teachers become aware of the impact of their own teaching on students' learning, they can make appropriate modifications while the class is still in process.

Our goal in Classroom Research is not to **add** research projects to already heavy teaching loads, but to **integrate** research into everyday teaching. A well-designed Classroom Research project should teach as well as provide feedback about the effectiveness of that teaching. A study of critical thinking in the classroom, for example, might begin with the assignment of a task that requires critical thinking and permits systematic observations about how students approach the task and how well they perform. The

Classroom Researcher would then experiment with modifications in the design of the task and its presentation, followed by a re-evaluation of the effectiveness of the changes.

A number of things are coming together at this particular time in history to make significant advances in teaching an exciting possibility and community colleges the potential leaders. In the first place, cognitive psychology as a discipline is now exploding with the energy and knowledge necessary to sustain and advance the experiences and observations of teachers in their classrooms. "Instructional psychology" which emphasizes the implications of learning theory for instruction has, according to the experts, "become a vigorous part of the mainstream of research on human cognition and development" (Glaser and Bossok, 1988, p. 1).

A second and related trend in research on learning is the growing conviction among scholars and researchers that pedagogy and subject matter must be joined. It is not very likely that teaching will be improved by some generic breakthrough; far more likely is that improved understanding of how students use their minds to structure knowledge in particular disciplines will give us greater insight into the relationship between what is taught and what is learned.

In years past, we have been all too ready to explain a student's poor performance by assuming "poor reasoning abilities," or earlier than that, "low I.Q." Newer understandings place more emphasis on the importance of building or structuring knowledge of the subject matter so that new learning can be related to information and understandings which are already present in the mind of the learner.

A series of studies of the differences between experts and novices, for example, shows that experts learn new concepts in their fields quickly and easily, not because they are more intelligent or have better reasoning abilities than novices, but because they are able to incorporate new information into principles and abstractions that already exist in their knowledge of the subject matter. The problem solving difficulties of novices, in contrast, are attributable, not to a lack of generic reasoning skills or problem solving abilities, but to the inadequacies of their knowledge bases (Glaser, 1988).

In her intensive study of basic writing, Mina Shaughnessy made essentially the same observation when she wrote that "Basic writing students write the way they do, not because they are slow or non-verbal, indifferent to or incapable of academic excellence, but because they are beginners and must like all beginners, learn by making mistakes" (p. 5). These recent directions in cognitive psychology have enormous implications for building a psychology of instruction which is conceptually strong enough to serve as a knowledge base for teaching.

All in all, the climate for advancing knowledge about teaching in the 1990s is potentially more productive than that of the 1970s. In the 1970s, access was the issue and research and knowledge about teaching was not up to the demands placed upon it by the enormous influx of disadvantaged students into open-door colleges. In the 1990s, the issue is and will remain quality, and it appears now that there will be new knowledge to sustain a concerted intellectual drive toward improved teaching through better understanding of the relationship between teaching and learning.

Now let me conclude these remarks with some observations about why I think that of all institutions of higher education, community colleges are in the best position to take the lead in developing both the scholarly and practical dimensions of expertise in college-level teaching. And why the celebration of excellence in the classroom is so important to community colleges.

First, community colleges are teaching institutions. Their faculties are hired on the premise that they are first and foremost teachers. Thus, they are, and should be, curious about learning and the impact they make as teachers on students' learning. If community colleges are to make their mark as premier teaching institutions, then we must offer faculty the opportunity to establish themselves as authorities on teaching and learning -- as seekers after knowledge as well as practitioners in the art and science of teaching.

A second reason for suggesting community college leadership in Classroom Research is that no other type of institution has quite the challenge or quite the obligation for excellence in teaching that the community college has. Battles won for access and equal opportunity are meaningless unless the populations newly admitted are gaining access to education that makes some difference in their lives. Improving the quality of teaching and learning is the logical next step for colleges that led the way in opening the routes of access to college. Community colleges can and should continue to work on access and retention, along with every other type of institution in higher education, but the task that will energize community colleges

is the development of special expertise and knowledge about the teaching/learning process.

Third, the curriculum of the comprehensive community college offers a rich and potentially productive laboratory for gaining knowledge about learning. No other type of institution offers such a wide range of learning experiences for study. The curricular mix of vocational, academic, developmental, and adult education, offers one of the richest resources available for study.

Fourth, classroom teaching is especially important to commuting students. The research of the past quarter of a century shows that much of the "value added" of a college education comes from the total environment of the college -- the dorms, extra-curricular activities, and out-of-class relationships with students and teachers. Because virtually all community college students are commuters, rushing from job and family responsibilities to class without much time to trade ideas or reactions with fellow students, whatever education these students get from college will depend heavily on their classroom learning experiences. The community college classroom bears a heavy burden for the development of the skills, values, and appreciations that we associate with educated persons.

Fifth, the practical orientation of community college teachers assures that the problems for Classroom Research are real problems that affect college teachers in their classrooms. Moreover, because community college classes tend to be smaller, personal attention is frequently expected and given, and teachers have an opportunity to

observe learning in process with its variety of stumbles and triumphs.

Finally, the diversity of the community college student population is an advantage in studying the learning process. The bright side of the concentration of students with learning problems in community colleges is that sometimes the best way to understand a process is to look at what goes wrong when things aren't working right. Students with learning difficulties -- whether stemming from disability, poor attitude, lack of knowledge, or lack of skills -- can try the patience of a saint or they can serve as windows through which to view the complexities of human learning. It is probably more productive to study the impact of teaching on learning in students whose learning is heavily dependent on the structuring of the task by teachers than it is to study self-propelled learners who will learn under almost any condition.

In summary, the mission, the curriculum, the students, and the faculty of community colleges make them ideal laboratories for the study of teaching and learning at the college level.

This conference, which brings together outstanding community college teachers to celebrate excellence in the classroom is part of a nationwide effort to make the art and science of teaching more professional, to empower teachers to improve learning in their own classrooms, and to launch a new decade in which excellent teaching emerges from a foundation of knowledge and is recognized and rewarded as a profession of the highest calling and utmost importance to the nation.

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11/1/89